

Anti-DCTN1 Antibody (3D5-C6-D5)
Mouse Monoclonal Antibody
Catalog # ABV12072**Specification**

Anti-DCTN1 Antibody (3D5-C6-D5) - Product Information

Application	WB, IP
Primary Accession	Q14203
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1

Anti-DCTN1 Antibody (3D5-C6-D5) - Additional Information**Gene ID** 1639

Application & Usage	WB: K562, MCF7, 293T and HeLa cell lysates, IP: HeLa cells
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Other Names

Dynactin subunit 1, 150 kDa dynein-associated polypeptide, DAP-150, DP-150, p135, p150-glued

Target/Specificity

Dynactin subunit 1

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

In PBS (pH 7.4) containing with 0.02% sodium azide and 50% glycerol

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

Anti-DCTN1 Antibody (3D5-C6-D5) is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-DCTN1 Antibody (3D5-C6-D5) - Protein Information

Name DCTN1 ([HGNC:2711](#))

Function

Part of the dynactin complex that activates the molecular motor dynein for ultra-processive transport along microtubules (By similarity). Plays a key role in dynein-mediated retrograde transport of vesicles and organelles along microtubules by recruiting and tethering dynein to microtubules. Binds to both dynein and microtubules providing a link between specific cargos, microtubules and dynein. Essential for targeting dynein to microtubule plus ends, recruiting dynein to membranous cargos and enhancing dynein processivity (the ability to move along a microtubule for a long distance without falling off the track). Can also act as a brake to slow the dynein motor during motility along the microtubule (PubMed:[25185702](http://www.uniprot.org/citations/25185702)). Can regulate microtubule stability by promoting microtubule formation, nucleation and polymerization and by inhibiting microtubule catastrophe in neurons. Inhibits microtubule catastrophe by binding both to microtubules and to tubulin, leading to enhanced microtubule stability along the axon (PubMed:[23874158](http://www.uniprot.org/citations/23874158)). Plays a role in metaphase spindle orientation (PubMed:[22327364](http://www.uniprot.org/citations/22327364)). Plays a role in centriole cohesion and subdistal appendage organization and function. Its recruitment to the centriole in a KIF3A-dependent manner is essential for the maintenance of centriole cohesion and the formation of subdistal appendage. Also required for microtubule anchoring at the mother centriole (PubMed:[23386061](http://www.uniprot.org/citations/23386061)). Plays a role in primary cilia formation (PubMed:[25774020](http://www.uniprot.org/citations/25774020)).

Cellular Location

Cytoplasm. Cytoplasm, cytoskeleton. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Cytoplasm, cytoskeleton, spindle. Nucleus envelope. Cytoplasm, cell cortex. Note=Localizes to microtubule plus ends (PubMed:17828277, PubMed:22777741, PubMed:25774020). Localizes preferentially to the ends of tyrosinated microtubules (PubMed:26972003). Localization at centrosome is regulated by SLK- dependent phosphorylation (PubMed:23985322). Localizes to centrosome in a PARKDA-dependent manner (PubMed:20719959). Localizes to the subdistal appendage region of the centriole in a KIF3A-dependent manner (PubMed:23386061). PLK1-mediated phosphorylation at Ser-179 is essential for its localization in the nuclear envelope (PubMed:20679239).

Tissue Location

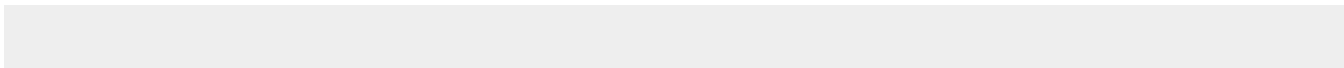
Brain.

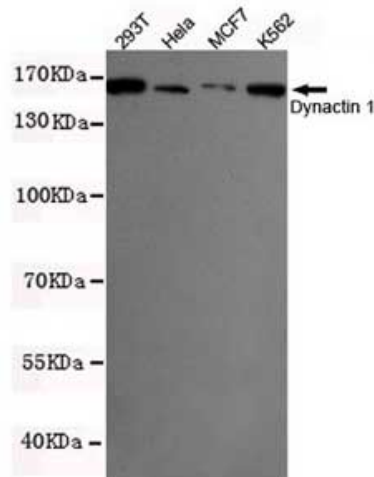
Anti-DCTN1 Antibody (3D5-C6-D5) - Protocols

Provided below are standard protocols that you may find useful for product applications.

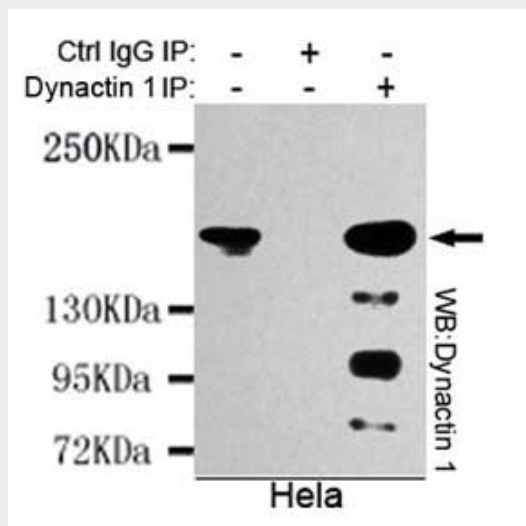
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-DCTN1 Antibody (3D5-C6-D5) - Images





Western blot detection of Dynactin 1 in K562, MCF7, 293T and HeLa cell lysates using DCTN1 Antibody



Immunoprecipitation analysis of HeLa cell lysates using DCTN1 Antibody

Anti-DCTN1 Antibody (3D5-C6-D5) - Background

Plays a key role in dynein-mediated retrograde transport of vesicles and organelles along microtubules by recruiting and tethering dynein to microtubules. Binds to both dynein and microtubules providing a link between specific cargos, microtubules and dynein. Essential for targeting dynein to microtubule plus ends, recruiting dynein to membranous cargos and enhancing dynein processivity (the ability to move along a microtubule for a long distance without falling off the track). Can also act as a brake to slow the dynein motor during motility along the microtubule.